REMARKS

Claims 76-152 are pending in the subject application. Applicants have hereinabove cancelled process claims 105-118 of the subject application. Applicants have amended claims 76, 119, 149 and 150. Entry of this Amendment and reconsideration of the application as amended are respectfully requested. Upon entry of this Amendment claims 76-104 and 119-152 are pending.

Applicants have provided after the signed page of this response a section entitled "VERSION WITH MARKINGS TO SHOW CHANGES MADE – DO NOT ENTER" to show the changes made to the claims of the subject application as required under 37 C.F.R. §1.121. Applicants respectfully submit that the amendment of the claims of the subject matter does not include new mater and request that the amendments be entered.

I. Election/Restriction

On pages 3 of the May 21, 2002 Office Action the Examiner made the November 23, 2001 Restriction Requirement for the subject application Final. The Examiner stated that he found applicants' arguments not persuasive. Applicants in a February 6, 2002 response to the November 23, 2001 Restriction Requirement elected with traverse to have the subject matter of Group III claims examined. The invention of Group III is directed to claims 76-104 and 119-152 drawn to compounds and compositions wherein R^5 is a piperidinyl group. The Examiner subsequently agreed during a May 14, 2002 telephonic interview with the undersigned attorney to examine in addition to the subject matter of Group III, the claims wherein R^5 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl. Applicants herein confirm their election to have the subject matter of Group III and claims wherein R^5 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl examined at the present time.

II. Objections

On page 3 of the May 21, 2002 Office Action the Examiner objected to claims 76-104 and 119-152 as containing non-elected subject matter. The Examiner stated that claims

drawn solely to the elected invention as identified in the Action would appear allowable. The Examiner stated that the claims must be amended to exclude non-elected subject matter. Applicants thank the Examiner for his indication that the elected subject matter appears to be allowable.

Applicants have as suggested by the Examiner amended the claims of the subject application to exclude non-elected subject matter and cancelled non-elected claims. More particularly, applicants have amended in claims 76, 119, 149 and 150 the definition of R^5 so that in only encompasses the elected subject matter. Applicants have cancelled non-elected claims 105-188. Accordingly, applicants respectfully submit that the claims of the subject application are now only drawn to elected subject matter and are in condition for allowance as indicated by the Examiner in his May 21, 2002 Action.

CONCLUSION

Applicants respectfully submit as stated by the Examiner in his conclusion that claims directed to elected subject matter appear allowable. Applicants respectfully submit they have amended the claims of the subject application so that they now only read upon elected subject matter. Applicants respectfully requested expeditious allowance of the pending claims for the subject application.

If the Examiner wishes to comment or discuss any aspect of this application or response, applicants' undersigned attorney invites the Examiner to call him at the telephone number provided below.

Respectfully submitted,

Date: 10/21/2002

Adrian G. Looney
Attorney for Applicants
Reg. No. 41,406

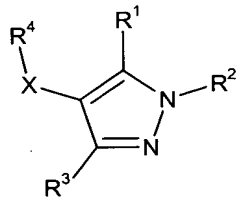
Pfizer Inc
Patent Department, 20th Floor
235 East 42nd Street
New York, NY 10017-5755
(212) 733-1038

VERSION WITH MARKINGS TO SHOW CHANGES MADE – DO NOT ENTER

In the claims

Claims 105-118 have been cancelled. Claims 76, 119, 149 and 150 have been amended as follows, deletions are shown with strikethrough.

76. (Amended) A compound of the formula Ib



(Ib)

or a pharmaceutically acceptable salt or solvate thereof, wherein

either (i) R^1 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, halo, -CN, -OR^7, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -NR^5CO-(C_1-C_6 alkylene)-OR^5, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR^5, -OR^8, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^8R^9, -NR^5COR^5, -NR^5COR^6, -NR^5COR^8, -$SO_2NR^5R^5$, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6 and

R^2 is -Y-Z,

or, R^1 and R^2, when taken together, represent unbranched C_3-C_4 alkylene, optionally wherein one methylene group of said C_3-C_4 alkylene is replaced by an oxygen atom or a nitrogen atom, said nitrogen atom being optionally substituted by R^5 or R^8,

and R^3 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, -CN, halo, -OR^7, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR^5, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -$SO_2NR^5R^5$, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6,

or (ii) R^1 and R^3 are each independently C_1-C_6 alkyl, C_3-C_7 cycloalkyl or halo-(C_1-C_6 alkyl), and R^2 is H,

provided that

(a) for definition (i), R^1 and R^3 are not both H,

(b) for definition (i), R^1 and R^3 are not both optionally substituted phenyl, as defined therein,

(c) for definition (i), when R^1 and R^3 are both methyl, R^2 is not phenyl or methyl, and

(d) for definition (ii), R^1 and R^3 are not both methyl;

Y is a direct bond or C_1-C_3 alkylene;

Z is R^{10} or, where Y is C_1-C_3 alkylene, Z is $-NR^5COR^{10}$, $-NR^5CONR^5R^{10}$, $-NR^5CONR^5COR^{10}$ or $-NR^5SO_2R^{10}$;

R^4 is phenyl or pyridyl, each substituted by at least one substituent selected from halo, -CN, C_1-C_6 alkyl, fluoro-(C_1-C_6)-alkyl, C_3-C_7 cycloalkyl and C_1-C_6 alkoxy;

each R^5 is independently either H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl, or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached represent ~~azetidinyl, pyrrolidinyl,~~ piperidinyl, ~~homopiperidinyl, piperazinyl, homopiperazinyl or morpholinyl,~~ said ~~azetidinyl, pyrrolidinyl,~~ piperidinyl~~,~~ ~~homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl~~ being optionally substituted by C_1-C_6 alkyl or C_3-C_7 cycloalkyl ~~and said piperazinyl and homopiperazinyl being optionally substituted on the nitrogen atom not taken together with the two R^5 groups to form the ring by $-COR^7$ or $-SO_2R^7$~~;

R^6 is a four to six-membered, aromatic, partially unsaturated or saturated heterocyclic group containing (i) from 1 to 4 nitrogen heteroatom(s) or (ii) 1 or 2 nitrogen heteroatom(s) and 1 oxygen or 1 sulphur heteroatom or (iii) 1 or 2 oxygen or sulphur heteroatom(s), said heterocyclic group being optionally substituted by $-OR^5$, $-NR^5R^5$, -CN, oxo, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, $-COR^7$ or halo;

R^7 is C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl;

R^8 is C_1-C_6 alkyl substituted by phenyl, pyridyl or pyrimidinyl, said phenyl, pyridyl and pyrimidinyl being optionally substituted by halo, -CN, $-CONR^5R^5$, $-SO_2NR^5R^5$,

$-NR^5SO_2R^7$, $-NR^5R^5$, $-(C_1-C_6$ alkylene)$-NR^5R^5$, C_1-C_6 alkyl, fluoro-(C_1-C_6)-alkyl, C_3-C_7 cycloalkyl or C_1-C_6 alkoxy;

R^9 is H, C_1-C_6 alkyl or C_3-C_7 cycloalkyl, said C_1-C_6 alkyl and C_3-C_7 cycloalkyl being optionally substituted by $-OR^5$, $-NR^5R^5$, $-NR^5COR^5$, $-CONR^5R^5$ or R^6;

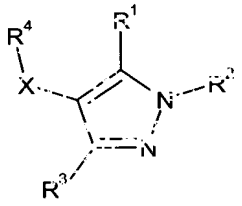
R^{10} is (a) benzyl or C-linked R^6, said benzyl being optionally substituted by halo, $-OR^5$, $-OR^{12}$, -CN, $-CO_2R^7$, $-CONR^5R^5$, $-OCONR^5R^5$, $-C(=NR^5)NR^5OR^5$, $-CONR^5NR^5R^5$, $-OCONR^5CO_2R^7$, $-NR^5R^5$, $-NR^5R^{12}$, $-NR^5COR^5$, $-NR^5CO_2R^7$, $-NR^5CONR^5R^5$, $-NR^5COCONR^5R^5$, $-NR^5SO_2R^7$, $-SO_2NR^5R^5$ or R^6, or (b) when R^1 and R^3 are each independently C_1-C_6 alkyl, C_3-C_7 cycloalkyl or halo-$(C_1-C_6$ alkyl), R^{10} is phenyl, C_1-C_6 alkyl or C_3-C_7 cycloalkyl each being optionally substituted by halo, $-OR^5$, $-OR^{12}$, -CN, $-CO_2R^7$, $-CONR^5R^5$, $-OCONR^5R^5$, $-C(=NR^5)NR^5OR^5$, $-CONR^5NR^5R^5$, $-OCONR^5CO_2R^7$, $-NR^5R^5$, $-NR^5R^{12}$, $-NR^5COR^5$, $-NR^5CO_2R^7$, $-NR^5CONR^5R^5$, $-NR^5COCONR^5R^5$, $-NR^5SO_2R^7$, $-SO_2NR^5R^5$ or R^6;

X is $-CH_2-$, $-CHR^{11}-$, -CO-, -S-, -SO- or $-SO_2-$;

R^{11} is C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl or C_1-C_6 alkoxy; and

R^{12} is C_1-C_6 alkyl substituted by R^6, $-OR^5$, $-CONR^5R^5$, $-NR^5COR^5$ or $-NR^5R^5$.

119. (Amended) A method for the treatment of a human immunodeficiency viral (HIV), a genetically related retroviral infection or a resulting acquired immunodeficiency syndrome (AIDS) comprising the administration of an effective amount of a compound of the formula (I)



(I)

or a pharmaceutically acceptable salt or solvate thereof, wherein

either (i) R^1 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, halo, -CN, $-OR^7$, $-OR^8$, $-CO_2R^5$, $-CONR^5R^5$, $-OCONR^5R^5$, $-NR^5CO_2R^7$, $-NR^5R^5$, $-NR^5COR^5$, $-NR^5CO-(C_1-C_6$

alkylene)-OR^5, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR^5, -OR^8, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^8R^9, -NR^5COR^5, -NR^5COR^6, -NR^5COR^8, -$SO_2NR^5R^5$, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, and

R^2 is H or -Y-Z,

or, (ii) R^1 and R^2, when taken together, represent unbranched C_3-C_4 alkylene, optionally wherein one methylene group of said C_3-C_4 alkylene is replaced by an oxygen atom or a nitrogen atom, said nitrogen atom being optionally substituted by R^5 or R^8;

Y is a direct bond or C_1-C_3 alkylene;

Z is R^{10} or, where Y is C_1-C_3 alkylene, Z is -NR^5COR^{10}, -$NR^5CONR^5R^{10}$, -$NR^5CONR^5COR^{10}$ or -$NR^5SO_2R^{10}$;

R^3 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, -CN, halo, -OR^7, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR^5, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -$SO_2NR^5R^5$, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6;

R^4 is phenyl or pyridyl, each being optionally substituted by R^6, halo, -CN, C_1-C_6 alkyl, fluoro-(C_1-C_6)-alkyl, C_3-C_7 cycloalkyl or C_1-C_6 alkoxy;

each R^5 is independently either H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl, or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached represent ~~azetidinyl, pyrrolidinyl,~~ piperidinyl, ~~homopiperidinyl, piperazinyl, homopiperazinyl or morpholinyl,~~ said ~~azetidinyl, pyrrolidinyl,~~ piperidinyl~~,~~ ~~homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl~~ being optionally substituted by C_1-C_6 alkyl or C_3-C_7 cycloalkyl ~~and said piperazinyl and homopiperazinyl being optionally substituted on the nitrogen atom not taken together with the two R5 groups to form the ring by -COR7 or -SO2R7~~;

R^6 is a four to six-membered, aromatic, partially unsaturated or saturated heterocyclic group containing (i) from 1 to 4 nitrogen heteroatom(s) or (ii) 1 or 2 nitrogen heteroatom(s)

and 1 oxygen or 1 sulphur heteroatom or (iii) 1 or 2 oxygen or sulphur heteroatom(s), said heterocyclic group being optionally substituted by $-OR^5$, $-NR^5R^5$, -CN, oxo, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, $-COR^7$ or halo;

R^7 is C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl;

R^8 is C_1-C_6 alkyl substituted by phenyl, phenoxy, pyridyl or pyrimidinyl, said phenyl, phenoxy, pyridyl and pyrimidinyl being optionally substituted by halo, -CN, $-CONR^5R^5$, $-SO_2NR^5R^5$, $-NR^5SO_2R^7$, $-NR^5R^5$, -(C_1-C_6 alkylene)-NR^5R^5, C_1-C_6 alkyl, fluoro-(C_1-C_6)-alkyl, C_3-C_7 cycloalkyl or C_1-C_6 alkoxy;

R^9 is H, C_1-C_6 alkyl or C_3-C_7 cycloalkyl, said C_1-C_6 alkyl and C_3-C_7 cycloalkyl being optionally substituted by $-OR^5$, $-NR^5R^5$, $-NR^5COR^5$, $-CONR^5R^5$ or R^6;

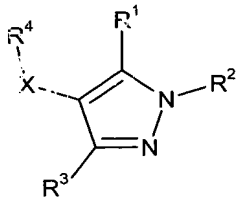
R^{10} is C_1-C_6 alkyl, C_3-C_6 alkenyl, C_3-C_6 alkynyl, C_3-C_7 cycloalkyl, phenyl, benzyl or C-linked R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, $-OR^5$, $-OR^{12}$, -CN, $-CO_2R^7$, $-CONR^5R^5$, $-OCONR^5R^5$, $-C(=NR^5)NR^5OR^5$, $-CONR^5NR^5R^5$, $-OCONR^5CO_2R^7$, $-NR^5R^5$, $-NR^5R^{12}$, $-NR^5COR^5$, $-NR^5CO_2R^7$, $-NR^5CONR^5R^5$, $-NR^5COCONR^5R^5$, $-NR^5SO_2R^7$, $-SO_2NR^5R^5$ or R^6;

X is $-CH_2$-, $-CHR^{11}$-, -CO-, -S-, -SO- or $-SO_2$-;

R^{11} is C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl or C_1-C_6 alkoxy; and

R^{12} is C_1-C_6 alkyl substituted by R^6, $-OR^5$, $-CONR^5R^5$, $-NR^5COR^5$ or $-NR^5R^5$.

149. (Amended) A method for the treatment of a human immunodeficiency viral (HIV), or genetically related retroviral, infection or a resulting acquired immunodeficiency syndrome (AIDS) comprising the administration of an effective amount of a compound of formula (Ia)



(Ia)

or a pharmaceutically acceptable salt or solvate thereof, wherein:

R^1 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, halo, $-OR^5$, $-CO_2R^5$, $-CONR^5R^6$, $-OCONR^5R^6$, $-NR^5CO_2R^6$, $-NR^5R^6$, $-NR^5COR^6$, $-SO_2NR^5R^6$, $-NR^5CONR^6R^7$, $-NR^5SO_2R^6$ or R^8, said C_1-C_6 alkyl, phenyl and benzyl being optionally substituted by halo, $-OR^5$, $-CO_2R^5$, $-CONR^5R^6$, $-OCONR^5R^6$, $-NR^5CO_2R^6$, $-NR^5R^6$, $-NR^5COR^6$, $-SO_2NR^5R^6$, $-NR^5CONR^6R^7$, $-NR^5SO_2R^6$ or R^8;

R^2 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl or C-linked R^{12}, said C_1-C_6 alkyl, phenyl and benzyl being optionally substituted by $-OR^9$, $-CO_2R^9$, $-CO_2NR^9R^{10}$, $-NR^9R^{10}$, $-NR^9COR^{10}$, $-NR^9CO_2R^{10}$, $-NR^9CONR^{10}R^{11}$, $-SO_2NR^9R^{10}$, $-NR^9SO_2R^{10}$ or R^{12};

R^3 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, halo, $-OR^{13}$, $-CO_2R^{13}$, $-CONR^{13}R^{14}$, $-OCONR^{13}R^{14}$, $-NR^{13}CO_2R^{14}$, $-NR^{13}R^{14}$, $-NR^{13}COR^{14}$, $-SO_2NR^{13}R^{14}$, $-NR^{13}CONR^{14}R^{15}$, $-NR^{13}SO_2R^{14}$ or R^{16}, said C_1-C_6 alkyl, phenyl and benzyl being optionally substituted by halo, $-OR^{13}$, $-CO_2R^{13}$, $-CONR^{13}R^{14}$, $-OCONR^{13}R^{14}$, $-NR^{13}CO_2R^{14}$, $-NR^{13}R^{14}$, $-NR^{13}COR^{14}$, $-SO_2NR^{13}R^{14}$, $-NR^{13}CONR^{14}R^{15}$, $-NR^{13}SO_2R^{14}$ or R^{16};

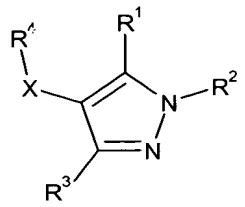
R^4 is phenyl or pyridyl, each being optionally substituted by halo, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_3-C_7 cycloalkyl or C_1-C_6 alkoxy;

R^5, R^6, R^7, R^9, R^{10}, R^{11}, R^{13}, R^{14} and R^{15} are either each H, C_1-C_6 alkyl or C_3-C_6 cycloalkyl or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached may represent ~~azetidinyl, pyrrolidinyl,~~ piperidinyl, ~~homopiperidinyl, piperazinyl, homopiperazinyl or morpholinyl,~~ said ~~azetidinyl, pyrrolidinyl,~~ piperidinyl~~, homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl~~ being optionally substituted by C_1-C_6 alkyl or C_3-C_7 cycloalkyl;

R^8, R^{12} and R^{16} are each a five- or six-membered heterocyclic group containing 1 to 4 heteroatoms selected from O, N and S and optionally substituted by oxo, C_1-C_6 alkyl, C_3-C_7 cycloalkyl or halo; and

X is $-CH_2-$, -S-, -SO- or $-SO_2-$.

150. (Amended) A method for the treatment of a disorder treatable by the inhibition of reverse transcriptase, comprising the administration of an effective amount of a compound of the formula (I),



(I)

or a pharmaceutically acceptable salt or solvate thereof, wherein

either (i) R^1 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, halo, -CN, -OR^7, -OR^8, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -NR^5CO-(C_1-C_6 alkylene)-OR^5, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR^5, -OR^8, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^8R^9, -NR^5COR^5, -NR^5COR^6, -NR^5COR^8, -$SO_2NR^5R^5$, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, and

R^2 is H or -Y-Z,

or, (ii) R^1 and R^2, when taken together, represent unbranched C_3-C_4 alkylene, optionally wherein one methylene group of said C_3-C_4 alkylene is replaced by an oxygen atom or a nitrogen atom, said nitrogen atom being optionally substituted by R^5 or R^8;

Y is a direct bond or C_1-C_3 alkylene;

Z is R^{10} or, where Y is C_1-C_3 alkylene, Z is -NR^5COR^{10}, -$NR^5CONR^5R^{10}$, -$NR^5CONR^5COR^{10}$ or -$NR^5SO_2R^{10}$;

R^3 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, -CN, halo, -OR^7, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR^5, -CO_2R^5, -$CONR^5R^5$, -$OCONR^5R^5$, -$NR^5CO_2R^7$, -NR^5R^5, -NR^5COR^5, -$SO_2NR^5R^5$, -$NR^5CONR^5R^5$, -$NR^5SO_2R^7$ or R^6;

R^4 is phenyl or pyridyl, each being optionally substituted by R^6, halo, -CN, C_1-C_6 alkyl, fluoro-(C_1-C_6)-alkyl, C_3-C_7 cycloalkyl or C_1-C_6 alkoxy;

each R^5 is independently either H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl, or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached represent ~~azetidinyl, pyrrolidinyl,~~ piperidinyl, ~~homopiperidinyl, piperazinyl, homopiperazinyl or morpholinyl,~~ said ~~azetidinyl, pyrrolidinyl,~~ piperidinyl~~, homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl~~ being optionally substituted by C_1-C_6 alkyl or C_3-C_7 cycloalkyl ~~and said piperazinyl and homopiperazinyl being optionally substituted on the nitrogen atom not taken together with the two R^5 groups to form the ring by COR^7 or SO_2R^7~~;

R^6 is a four to six-membered, aromatic, partially unsaturated or saturated heterocyclic group containing (i) from 1 to 4 nitrogen heteroatom(s) or (ii) 1 or 2 nitrogen heteroatom(s) and 1 oxygen or 1 sulphur heteroatom or (iii) 1 or 2 oxygen or sulphur heteroatom(s), said heterocyclic group being optionally substituted by $-OR^5$, $-NR^5R^5$, -CN, oxo, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, $-COR^7$ or halo;

R^7 is C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl, phenyl or benzyl;

R^8 is C_1-C_6 alkyl substituted by phenyl, phenoxy, pyridyl or pyrimidinyl, said phenyl, phenoxy, pyridyl and pyrimidinyl being optionally substituted by halo, -CN, $-CONR^5R^5$, $-SO_2NR^5R^5$, $-NR^5SO_2R^7$, $-NR^5R^5$, -(C_1-C_6 alkylene)-NR^5R^5, C_1-C_6 alkyl, fluoro-(C_1-C_6)-alkyl, C_3-C_7 cycloalkyl or C_1-C_6 alkoxy;

R^9 is H, C_1-C_6 alkyl or C_3-C_7 cycloalkyl, said C_1-C_6 alkyl and C_3-C_7 cycloalkyl being optionally substituted by $-OR^5$, $-NR^5R^5$, $-NR^5COR^5$, $-CONR^5R^5$ or R^6;

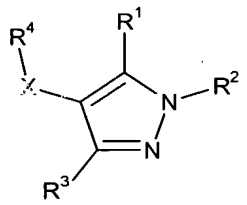
R^{10} is C_1-C_6 alkyl, C_3-C_6 alkenyl, C_3-C_6 alkynyl, C_3-C_7 cycloalkyl, phenyl, benzyl or C-linked R^6, said C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, $-OR^5$, $-OR^{12}$, -CN, $-CO_2R^7$, $-CONR^5R^5$, $-OCONR^5R^5$, $-C(=NR^5)NR^5OR^5$, $-CONR^5NR^5R^5$, $-OCONR^5CO_2R^7$, $-NR^5R^5$, $-NR^5R^{12}$, $-NR^5COR^5$, $-NR^5CO_2R^7$, $-NR^5CONR^5R^5$, $-NR^5COCONR^5R^5$, $-NR^5SO_2R^7$, $-SO_2NR^5R^5$ or R^6;

X is $-CH_2-$, $-CHR^{11}-$, -CO-, -S-, -SO- or $-SO_2-$;

R^{11} is C_1-C_6 alkyl, C_3-C_7 cycloalkyl, fluoro-(C_1-C_6)-alkyl or C_1-C_6 alkoxy; and

R^{12} is C_1-C_6 alkyl substituted by R^6, $-OR^5$, $-CONR^5R^5$, $-NR^5COR^5$ or $-NR^5R^5$

or a compound of the formula (Ia)



(Ia)

or a pharmaceutically acceptable salt or solvate thereof, wherein:

R^1 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, halo, $-OR^5$, $-CO_2R^5$, $-CONR^5R^6$, $-OCONR^5R^6$, $-NR^5CO_2R^6$, $-NR^5R^6$, $-NR^5COR^6$, $-SO_2NR^5R^6$, $-NR^5CONR^6R^7$, $-NR^5SO_2R^6$ or R^8, said C_1-C_6 alkyl, phenyl and benzyl being optionally substituted by halo, $-OR^5$, $-CO_2R^5$, $-CONR^5R^6$, $-OCONR^5R^6$, $-NR^5CO_2R^6$, $-NR^5R^6$, $-NR^5COR^6$, $-SO_2NR^5R^6$, $-NR^5CONR^6R^7$, $-NR^5SO_2R^6$ or R^8;

R^2 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl or C-linked R^{12}, said C_1-C_6 alkyl, phenyl and benzyl being optionally substituted by $-OR^9$, $-CO_2R^9$, $-CO_2NR^9R^{10}$, $-NR^9R^{10}$, $-NR^9COR^{10}$, $-NR^9CO_2R^{10}$, $-NR^9CONR^{10}R^{11}$, $-SO_2NR^9R^{10}$, $-NR^9SO_2R^{10}$ or R^{12};R^3 is H, C_1-C_6 alkyl, C_3-C_7 cycloalkyl, phenyl, benzyl, halo, $-OR^{13}$, $-CO_2R^{13}$, $-CONR^{13}R^{14}$, $-OCONR^{13}R^{14}$, $-NR^{13}CO_2R^{14}$, $-NR^{13}R^{14}$, $-NR^{13}COR^{14}$, $-SO_2NR^{13}R^{14}$, $-NR^{13}CONR^{14}R^{15}$, $-NR^{13}SO_2R^{14}$ or R^{16}, said C_1-C_6 alkyl, phenyl and benzyl being optionally substituted by halo, $-OR^{13}$, $-CO_2R^{13}$, $-CONR^{13}R^{14}$, $-OCONR^{13}R^{14}$, $-NR^{13}CO_2R^{14}$, $-NR^{13}R^{14}$, $-NR^{13}COR^{14}$, $-SO_2NR^{13}R^{14}$, $-NR^{13}CONR^{14}R^{15}$, $-NR^{13}SO_2R^{14}$ or R^{16};

R^4 is phenyl or pyridyl, each being optionally substituted by halo, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_3-C_7 cycloalkyl or C_1-C_6 alkoxy;

R^5, R^6, R^7, R^9, R^{10}, R^{11}, R^{13}, R^{14} and R^{15} are either each H, C_1-C_6 alkyl or C_3-C_6 cycloalkyl or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached may represent ~~azetidinyl, pyrrolidinyl,~~ piperidinyl, ~~homopiperidinyl, piperazinyl, homopiperazinyl or morpholinyl, said azetidinyl, pyrrolidinyl,~~ piperidinyl~~, homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl~~ being optionally substituted by C_1-C_6 alkyl or C_3-C_7 cycloalkyl;

R^8, R^{12} and R^{16} are each a five- or six-membered heterocyclic group containing 1 to 4 heteroatoms selected from O, N and S and optionally substituted by oxo, C_1-C_6 alkyl, C_3-C_7 cycloalkyl or halo; and

X is $-CH_2-$, -S-, -SO- or $-SO_2-$ to a patient in need of such treatment.